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Three NEA Monographs on Arts Participation: A Research Digest

Introduction

Every few years, the National Endowment for the Arts partners with the U.S. Census Bureau to conduct the Survey of Public Participation in the Arts (SPPA), a study that tracks adult levels of involvement with arts activities. Since the early 1980s, social scientists within the academic, government, nonprofit, and commercial spheres have supplemented the NEA's official findings with their own analyses of the SPPA data.

The most recent wave of the survey occurred in 2008. Soon afterward, the NEA commissioned independent researchers to mine the SPPA data for details on the following topics: arts education; the personal performance and creation of artworks; and the relationship between age and arts participation. This Research Note presents key findings from their investigations, which have resulted in three research reports, now available on the NEA website (arts.gov):

- NEA Research Report #52, *Arts Education in America: What the Declines Mean for Arts Participation*, by Nick Rabkin and E.C. Hedberg, NORC at the University of Chicago, http://www.arts.gov/research/2008-SPPA-ArtsLearning.pdf

- NEA Research Report #53, *Age and Arts Participation: A Case against Demographic Destiny*, by Mark J. Stern, University of Pennsylvania, http://www.arts.gov/research/2008-SPPA-Age.pdf

- NEA Research Report #54, *Beyond Attendance: A Multi-Modal Understanding of Arts Participation*, by Jennifer L. Novak-Leonard and Alan S. Brown, WolfBrown, http://www.arts.gov/research/2008-SPPA-BeyondAttendance.pdf

Working separately, but from a common data source, these researchers brought original research hypotheses and methods to bear on their own analyses. Collectively, the reports challenge popular wisdom about which factors are central to the future of arts participation in America, who does or does not participate, and even what a full range of arts participation opportunities might look like.

Bonnie Nichols, NEA Office of Research & Analysis, discusses their findings below.

Summary

1. **Long-term declines in childhood arts education have serious implications for the future of arts participation in America.** (*Rabkin & Hedberg*)

    - The relationship between arts education and adults' rates of arts participation has been consistently strong throughout the survey's history.

    - By 2008, only half of all 18-year-olds (49.5 percent, or 2.6 million) had received any arts education in childhood—a decline of 23 percent since 1982.

    - According to long-term patterns of respondent recall, a "turning point" in national access to arts education likely occurred in the mid-1970s and early 1980s. It seems reasonable to infer that the national declines in arts education rates, reported from 1982 to 2008, resulted partly from cuts in school-based arts instruction.

    - From 1982 to 2008, Hispanics and African Americans accounted for a highly disproportionate share of all adults who reported not having received arts education in childhood.

2. **Age is a poor predictor of arts participation habits.** (*Stern*)

    - After accounting for other factors, age predicted only 0.4 percent of the variance in the total number of arts events that U.S. adults attended in 1982-2008. By contrast, education predicted 15 percent.

- The strength of the relationship between age and arts attendance has waned over time. From 1982 to 2008, the age and generation group of U.S. adults never predicted more than 2 percent of the variance in the total number of events attended.

- The age distribution of arts-goers now generally mirrors that of the U.S. adult population. At jazz performances, for example, Baby Boomers continue to dominate the audience population—just as they did in the 1980s, when they were among the youngest age groups represented.

- "Cultural omnivores" have declined as a share of the U.S. adult population. Also, these Americans—who typically attend a variety of arts events, in many different art forms and settings—curbed the average number of events they attended between 2002 and 2008. These two factors accounted for 82 percent of the overall decline in the total number of "benchmark" arts events attended over that period.

3. **A more comprehensive picture of arts engagement—one not focused exclusively on live arts attendance rates—yields a narrative that is different from prior NEA reports about U.S. adult participation in the arts.** (*Novak-Leonard & Brown*)

    - Three out of four U.S. adults (74 percent, or 166.4 million) did any single arts activity (exclusive of literary reading) in the 2008 Survey of Public Participation in the Arts, inclusive of creating art or participating via electronic media. This rate is more than double that of attendance at "benchmark" arts events.

    - One out of three adults (33 percent, or 74.2 million) both attended *and* created art. In contrast, 17 percent of adults only attended arts, and 12 percent only created or performed art.

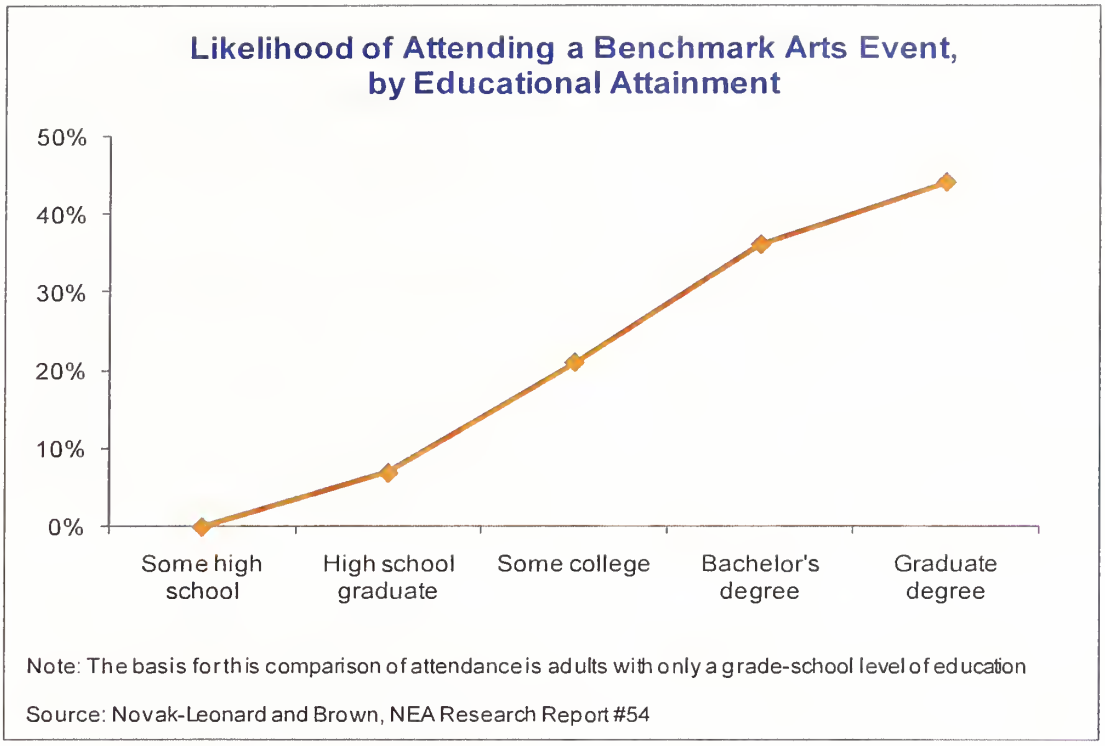
- Relatively high rates of attendance at arts festivals—as well as attendance at schools and places of worship—suggest the importance of venue to overall arts-participation rates.
- Arts education in childhood is one of the best predictors of both arts attendance and arts creation and performance later in life.

Relative Effects of Education and Arts Learning on Arts Participation

Previous NEA research reports have shown the strong correlation between a person's educational attainment—including a background in arts education—and his or her patterns of arts participation in adulthood.[1] Each of the three reports under discussion (#52, #53, and #54) reaches a similar conclusion with regard to the primacy of education and arts education in predicting personal arts involvement.

In their report, Novak-Leonard and Brown examine the likelihood of adults attending at least one "benchmark" arts activity, when a variety of demographic and other variables have been held constant. Compared with adults who have only a grade-school education, for example, adults with at least some college are about 20 percent more likely to attend a benchmark arts event, regardless of their gender, age, race, income, or whether or not they live in an urban/metro area.[2] For adults with graduate degrees, the likelihood is more than 40 percent greater. (*See the following graph.*)

"Benchmark" arts activities tracked since 1982 include jazz, classical music, opera, musical or non-musical plays, ballet performances, and visits to art museums or art galleries.



Note: The basis for this comparison of attendance is adults with only a grade-school level of education

Source: Novak-Leonard and Brown, NEA Research Report #54

So much for the potential impact of education on arts attendance. What about the role of arts classes or lessons in fostering this behavior? Novak-Leonard and Brown show that even after we control for gender, age, race, and other variables, adults who have taken art classes at any time in their lives are still more than 20 percent more likely to attend benchmark arts activities (compared with Americans who have never taken art classes).

Not only is arts education a key predictor of adults' attendance patterns; it has an even stronger relationship with adults' levels of personal art creation or performance. In the report by Novak-Leonard and Brown, arts education seems to operate as a "leveler"—in effect, reducing the potential impacts of socioeconomic status, including such variables as education and income.

Let's consider first the relationship between general educational attainment and personal arts creation and performance. Similar to the findings for arts attendance, the likelihood of creating or performing art rises with education.[3] Adults with a bachelor's degree are 16 percent more likely to create or perform art, compared with those whose

highest level of training is elementary school. The likelihood rises to 23 percent for adults with graduate degrees.

This outcome changes, however, when the taking of art classes or lessons is introduced into the model. After this adjustment, education no longer predicts levels of arts creation or performance. Adults who have taken art classes at any time in their lives are 32 percent more likely to create art of their own.

Arts education has a similar leveling effect on U.S. citizenship as a predictor of personal art-making. Before the taking of art classes is included in Novak-Leonard and Brown's statistical model, naturalized citizens and non-citizens are less likely to create or perform art than native-born adults. But once art classes are considered, citizen status also drops out as a predictor of creation and performance.[4]

Access to Arts Learning

In their report, Rabkin and Hedberg reaffirm the importance of arts education in predicting arts participation rates. Combining data from the 1982, 1992, 2002, and 2008 SPPA waves, a statistical analysis reveals that **adults who took childhood classes in at least one art form were about 50 percent more likely to attend a "benchmark" arts event**, compared with adults who took no childhood art classes. Adults who took childhood classes in at least four art subjects were three times more likely to attend the arts.

Especially in light of this relationship, it is disheartening to observe long-term declines in arts education as well as large differences in the socioeconomic status of Americans who have received an arts education and those who have not.

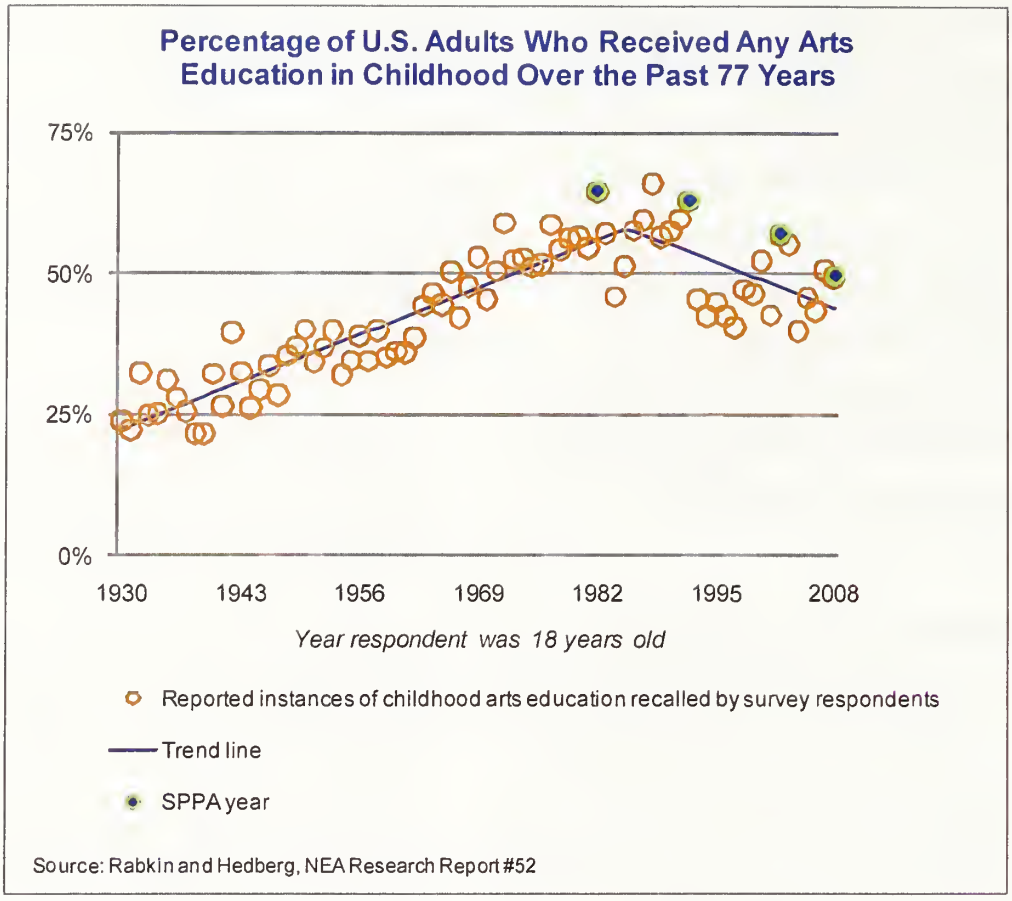
Rabkin and Hedberg's analysis reveals two telling characteristics of arts learning. First, the percentage of young adults taking childhood art classes, as captured by the SPPA, has declined.[5] In 1982, nearly two-thirds of 18-year-olds reported taking art classes in their childhood. By 2008, that share had dropped to 50 percent.

By tracking the rate of self-reported arts education in childhood by the age of SPPA respondents, Rabkin and Hedberg show that childhood arts education likely grew throughout much of the 20th century. A turning point seems to have occurred in the mid-1970s through early 1980s, however, as the percentage of young adults who reported having studied art as children began to fall. This downward trend has continued into the 21st century.

According to the authors, this pattern stems from the expansion of arts education in public schools through the early 1970s, followed by declines in school-based arts instruction that are understood to have started in the mid-1970s. Rabkin and Hedberg observe that in the late 1970s and throughout the 1980s, many school systems across the nation began reducing arts instruction in response to budget constraints and a stronger emphasis on "basic," non-art subjects.[6]

In the authors' view, the proportionately greater declines in the rates of music and visual arts education that 18-year-olds recall receiving in childhood, compared with the rates of decline reported for other types of arts learning, reflect those changes to school curricula. Previous SPPA data (from 1992 and 2002) allowed researchers to identify where survey respondents had received their arts instruction—whether in or out of school. In those survey years, most people who reported having received music or visual arts instruction said they did so in school. Therefore, describing 18-year-olds whose childhood arts education was captured in the SPPA data from 1985 through 2008, Rabkin and Hedberg note:

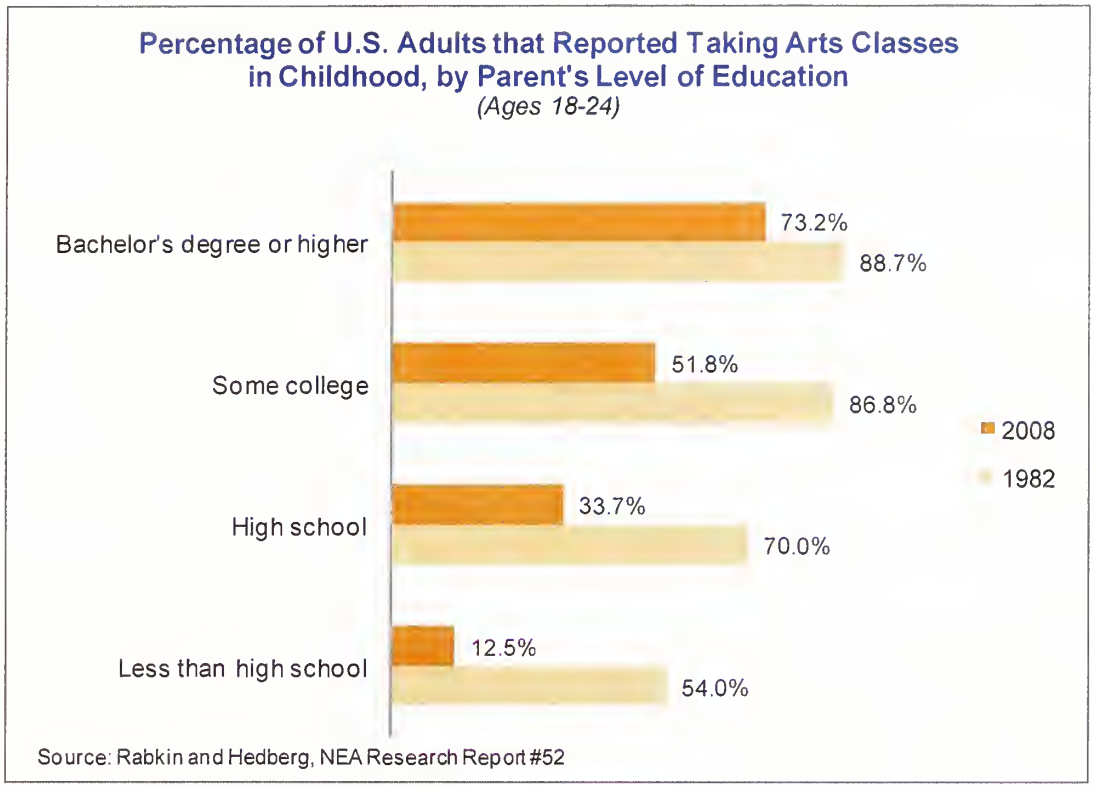
> Declines were greatest in music and visual arts, the two arts subjects taught most in schools, while theater and dance actually recorded small increases. Given the mandatory status of public education, there is good reason to believe that the general decline in arts education participation in childhood was in large measure the result of cuts in school-based arts instruction.[7]



A second key finding is that the decline was much sharper for Americans whose parents were less educated. As the following chart indicates, childhood arts education rises with parents' education levels, an accepted proxy for the respondent's socioeconomic status in childhood. In 1982, for example, nearly 90 percent of young adults taking childhood arts classes had parents with bachelor's degrees or higher levels of training. By 2008, that proportion fell to 73 percent.

Although sizable (15 percentage points), this drop pales in comparison with the decline for respondents whose parents were not as well-educated. Between 1982 and 2008, the rate of childhood participation in arts classes or lessons, among young adults whose parents were high school graduates, declined by more than 36 percentage points—from 70 percent to 34 percent.

Even in families with low levels of education (less than a high school diploma), the percentage of adults taking art classes in childhood was a sizable 54 percent in 1982. By 2008, however, few young adults from this group had taken classes—just 13 percent.



Also telling are disparities in childhood arts learning by race and ethnicity.[8] As the following table shows, between 1992 and 2008 much of the decline in the percentage of young adults taking art classes in childhood was among African Americans. In 1992, nearly 44 percent of young African Americans had taken art classes when they were children. By 2008, that percentage fell to 28 percent—a 16-point decline.

Childhood arts learning also fell among whites, but only by 7 percentage points—not even half the drop reported by African Americans. (The decline was also nearly 7

percentage points for young Hispanics.) Overall, however, the SPPA reveals a large race/ethnicity gap in childhood arts learning. **In 2008, almost 60 percent of young white adults reported having taken art classes as children. By comparison, only about one-quarter of both African Americans and Hispanics experienced childhood arts learning.**

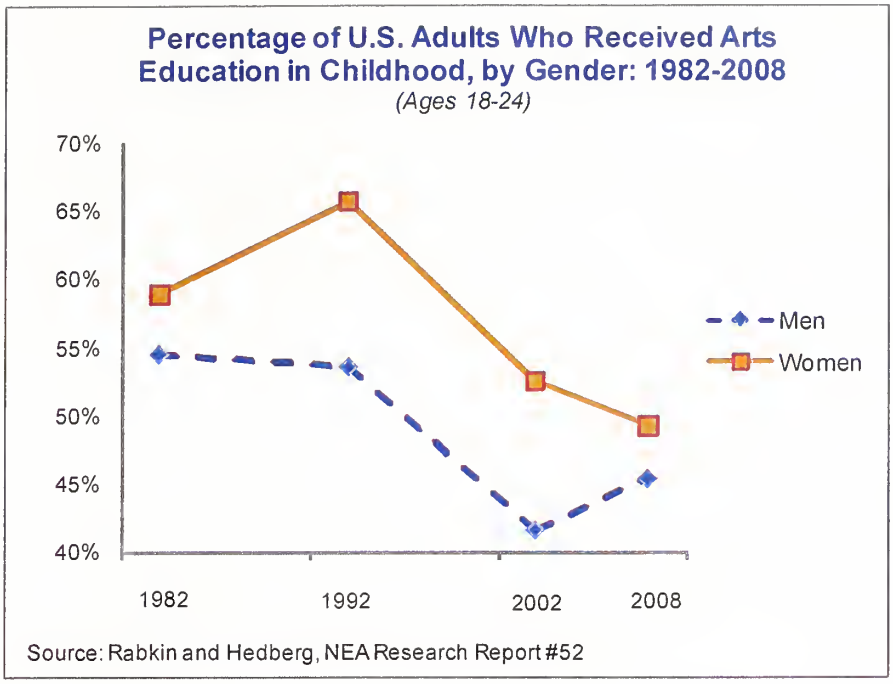
Percentage of U.S. Adults Reporting Childhood Art Classes, by Race and Ethnicity
(Ages 18-24)

	1992	2008	Change (pp)
White*	64.8%	57.9%	-6.9
African American*	43.5%	26.2%	-17.3
Hispanic	34.8%	28.1%	-6.7

*Non-Hispanic
pp=percentage points

Source: Rabkin and Hedberg, NEA Research Report #52

Women tend to participate in the arts at higher rates than men do, even after controlling for arts classes or lessons received in childhood, as well as a variety of demographic characteristics such as age and education.[9] Coincidentally or not, as the following graph shows, higher percentages of women also report taking art classes as children. In 1982, for example, 59 percent of women 18-24 took art classes in childhood, versus just under 55 percent of young men. After falling precipitously in 2002, the share of young men taking childhood art classes climbed to 45 percent in 2008. The rate for young women also fell sharply in 2002. But in 2008 it continued to fall, narrowing the gender gap in childhood arts education rates.



Arts Participation by Age

Age Composition of Arts Audiences

With the release of the 2008 SPPA data, researchers noted not only long-term declines for attendance at many types of arts events, but also much less representation of younger age groups in U.S. adult audiences for the arts. For example, in 2008 the average adult was 45 years old, six years older than in 1982. Over this period, however, the average jazz concertgoer aged 17 years to reach 46; the typical ballet attendee was also 46—up from an average age of 37 in 1982.[10]

On the surface, these figures depict an arts audience aging more rapidly than the adult population. However, once the age make-up of the entire SPPA population is better accounted for, the results are less dramatic. Indeed, in 2008, **the distribution of young adults (18-29 years old) and older Americans (60 years and older) in arts audiences more closely matched each group's share of the general population.**

An "index of representativeness" shows the percentage by which the audience share for a particular age group is larger or smaller than its share of the entire population.[11] In 1982, for example, the "benchmark arts index" was 11 for young adults (18 to 29 years old). This means that compared with their share of the

U.S. adult population, young adults exceeded their share of arts audiences by 11 percent. By 2008, the index for this age group was 0, which means their attendance share matched their share of the adult population.

In 1982, the benchmark index for adults 60 and above was -32 (they were 32 percent below what we would expect, given their share of the adult population). In 2008, the index of representativeness rose to -13. Although not 0, adults 60 and older were better represented (more in line with their share of the population) at benchmark arts events in 2008 than in 1982.

As the following table shows, young adults exceeded their share of arts audiences in 1982, while much older adults (ages 60 and above) were underrepresented. By 2008, attendance was generally closer to each group's share of the U.S. adult population.

Index of Representativeness for Benchmark Arts Activities: 1982-2008

Year	Age group:			
	Under 30	30-44	45-59	60 and older
1982	11	13	0	-32
1985	2	16	-1	-24
1992	3	7	6	-20
2002	-6	6	15	-21
2008	0	7	4	-13

Source: Stern, NEA Research Report #53

These patterns differ somewhat for attendance at selected art forms. In 1982, for example, adults under 30 were strongly overrepresented in jazz audiences—their index of representativeness was 76. By 2008, however, the index for young adults fell to -6, which is much closer to 0, indicating that their share of the jazz audience was closer to their share of the total adult population.

A similar trend may be observed in adults 60 and older. The jazz attendance index for this age group was -75 in 1982. By 2008, the

index climbed to -23—a 52-point improvement in their share of jazz audiences.

Also notable is the representativeness of adults ages 45-59. In 1982, this age group was 32 percent below its expected share of jazz audiences. By 2008, however, they exceeded their share of jazz audiences by 29 percent. This pattern likely reflects the aging of the Baby Boomers. Just as Boomers led the jazz-going population when they were young in 1982, their appetite for jazz continued when they were middle-aged in 2002 and 2008.

Index of Representativeness for Jazz Attendance: 1982-2008

Year	Age group:			
	Under 30	30-44	45-59	60 and older
1982	76	1	-32	-75
1985	41	28	-26	-68
1992	17	21	-5	-46
2002	2	12	17	-40
2008	-6	-6	29	-23

Source: Stern, NEA Research Report #53

With the exception of young adults, ballet became more evenly represented by age. In 1982, the ballet index for adults under 30 was -1, suggesting that their share of the ballet audience was nearly on par with their share of the adult population. By 2008 the index for this age group fell to -17. For all age groups 30 and older, however, the index improved over time. The index for adults between 30 and 44 years of age was 34 in 1982, but by 2008 it was 4. Adults 60 and older were underrepresented in the ballet audience in 1982 (an index of -33). In 2008, the index for this age category was 9.

Audiences for classical music concerts, on the other hand, became decidedly older. In 1982, for example, the classical music index for adults under 30 was -11. By 2008, the index fell to -26. In other words, young adults now make up an even smaller share of the classical music audience. Americans 60 years of age and older were also below their share of the population in 1982 (-18). But in 2008, the index for this age group jumped to 22.

Age as a Predictor of Arts Participation

Despite the aging arts audience described above, a more controlled analysis shows that age and cohort are weak predictors of arts participation. Once other characteristics are considered—particularly education—the year a person was born plays only a marginal role in predicting arts participation.

For example, combining data from the 1982-2008 SPPAs, Stern employed a regression model that relates the average number of benchmark arts activities attended to various demographic and other characteristics, including gender, marital status, educational attainment, and ethnicity. For this first model, age is excluded.

Of the variables modeled, education was the stand-out predictor: on its own, it predicted 18.3 percent of the variance in number of benchmark activities attended. The other variables, independently, predicted no more than 0.7 percent of the variance.

The overall model, including the effects of all the variables, resulted in an "R square" statistic of 20.5 percent. This means that the combined variables predicted 20.5 percent of the variance in average number of benchmark activities attended.

Adding age to the model yields little change to the outcome. Independently, the contribution from education dropped slightly to 15.4 percent, while age predicted only 0.4 percent of the variance in attendance. Moreover, adding age to the model increased the R square value only slightly—from 20.5 percent to 21.1 percent.

These results suggest that the effect of age on arts participation, though not zero, is marginal. As the other SPPA research reports have found, educational attainment is a far better predictor of arts participation.

Percentage of Average Number of Arts Activities Attended, as Predicted by Key Variables

Variable	*Percent*[1]
Age	0.4%
Education	15.4%
Ethnicity	0.5%
Gender	0.8%
Marital status	0.4%

[1] The percentage of the variation in average number of activities attended over the period of 1982-2008, predicted by each variable, independently. This percentage is the "partial eta square."

This general linear model also included interactive terms, including an interaction between age and education, which predicted 0.3 percent.

Source: Stern, NEA Research Report #53

Age, Cohort, and Omnivorous Tastes in Art

Between 1982 and 2008, the percentage of U.S. adults attending a benchmark arts event declined from 39 percent to 34.6 percent. Of course, any number of factors may have played a role in that decline, including the U.S. economic recession that was under way for six months when the 2008 SPPA was conducted. But another likely contributor is that there are now fewer adults who are characterized as "cultural omnivores," those who attend a variety of benchmark arts events, and who attend the arts frequently.

While age and cohort are weak predictors of overall arts participation, they have a somewhat stronger influence on shaping a "cultural omnivore." In his report, Stern shows that young adults and those belonging to the World War II and early Baby Boom generations were more likely to be cultural omnivores, compared with late Boomers and members of Generation X[12].

As these generations aged, cultural omnivores declined as a share of the U.S. adult population. In 1982, for example, when the early Baby Boomers were considerably younger, cultural omnivores made up 15 percent of all SPPA benchmark respondents. By 2008, omnivorous arts participants were 10 percent of the total. Over the same period, adults who had attended zero benchmark activities in the previous year rose from 61 percent to 67 percent of the total.

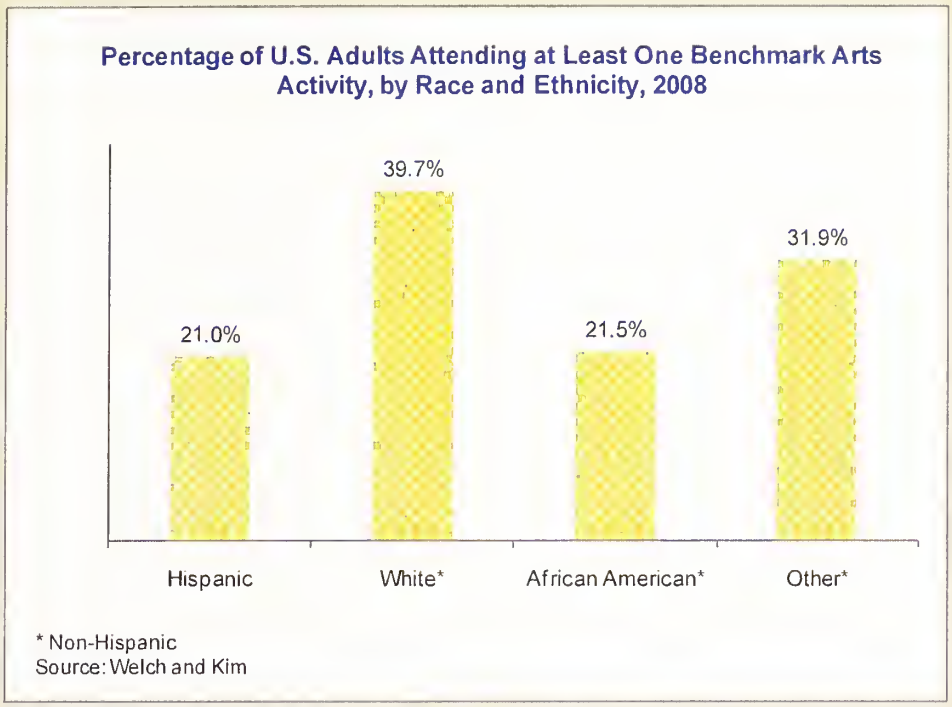
Not only are there now fewer cultural omnivores, but the number of events that omnivores attend appears to be shrinking. Between 2002 and 2008, the number of arts events attended per omnivore fell by more than one event per year. Stern estimates that 82 percent of the decline in the total number of benchmark activities attended between 2002 and 2008 stems from this combination—fewer cultural omnivores attending arts events less frequently.

Yet Stern is finally optimistic about what this trend may bode for the future of arts participation.

> If we are correct that the cultural omnivore is in decline, it may be because the omnivore represented a transitional stage in our cultural development… Cultural participants [are] no longer willing to let their social status define what cultural tastes were acceptable for them. Although the omnivore — as measured by the SPPA — may be foundering, this quest for a more personal, flexible, and protean approach to cultural engagement appears very much alive.[13]

Race, Ethnicity, and Arts Participation[14]

In 2008, the benchmark arts attendance rate for white adults was roughly twice that of African Americans and Hispanics.[15]



Commissioned NEA research shows, however, that despite these visible discrepancies, race and ethnicity are poor predictors of arts attendance. Once other characteristics (principally education) are correctly accounted for, race and ethnicity play virtually no role in predicting arts participation.

Using data from the 2008 SPPA, for example, a regression model predicting jazz attendance shows initially that African Americans were 58 percent more likely than whites to go to a jazz concert. Adding education to the model, however, renders race statistically insignificant.[16] In other words, it is not a person's race, but rather his or her educational attainment that largely predicts jazz concert attendance.[17]

Yet without controlling for education and other variables, racial/ethnic group disparities do emerge within arts audiences. To illustrate, African Americans in 1992 were 11 percent of the adult population, but 17 percent of the total jazz audience. In other words, the share of African Americans attending jazz concerts exceeded this group's share of the U.S. population by nearly 6 percentage points. By 2008, however, whites exceeded their share of the jazz audience (by almost 9 percentage points). African Americans' share of the total audience of jazz, as a result, was much closer to this group's share of the U.S. population.

It should be noted that over this timeframe, white adults' rate of attendance at jazz concerts did not rise to that of African Americans. Rather, the share of African Americans attending jazz concerts fell from 16 percent in 1992 to the same rate reported for whites in 2008 (just under 9 percent).

Racial/Ethnic Composition of Jazz Concert-Goers, 1992-2008

Race/ethnicity	1992			2008		
	Percentage of U.S. population	Percentage of jazz audience	Difference	Percentage of U.S. population	Percentage of jazz audience	Difference
Hispanic	8.4%	4.8%	-3.6	13.5%	6.8%	-6.7
White*	77.3%	76.4%	-0.9	68.7%	77.5%	8.8
African American*	11.2%	17.1%	5.9	11.4%	12.5%	1.1
Other*	3.1%	1.6%	-1.5	6.4%	3.2%	-3.2

* Non-Hispanic
Source: Welch and Kim

For a number of other art forms, white audience members continue to exceed their share of the general population. In 1992, for example, whites were 84 percent of the total audience for musical plays, 7 points above their share of the adult population. By 2008, whites exceeded their share of the audience by almost 14 points. This gap increased not because whites' share of the musical play audience rose, but because whites' share of the U.S. adult population fell.

The Relationship between Arts Attendance and Personal Art-Making

Although most of the analysis discussed earlier has focused on attendance at arts events, Novak-Leonard and Brown conceptualized a much broader definition of arts participation. For example, they note that in 2007-2008, 74 percent of U.S. adults attended arts events, created art, or experienced art via electronic media.[18] By comparison, 34.6 percent of adults (less than half the rate) attended the "benchmark" arts.

The Novak-Leonard and Brown analysis uses the following definitions of attendance and creation, based on questions from the 2008 SPPA:

Attendance

Music (jazz, classical music, opera, Latin or Spanish or salsa music, and outdoor performing arts festivals); *Theater* (musical or non-musical plays); *Dance* (ballet or other dance); *Visual arts* (art museums or craft fairs); *Site visits for historic or design value.*

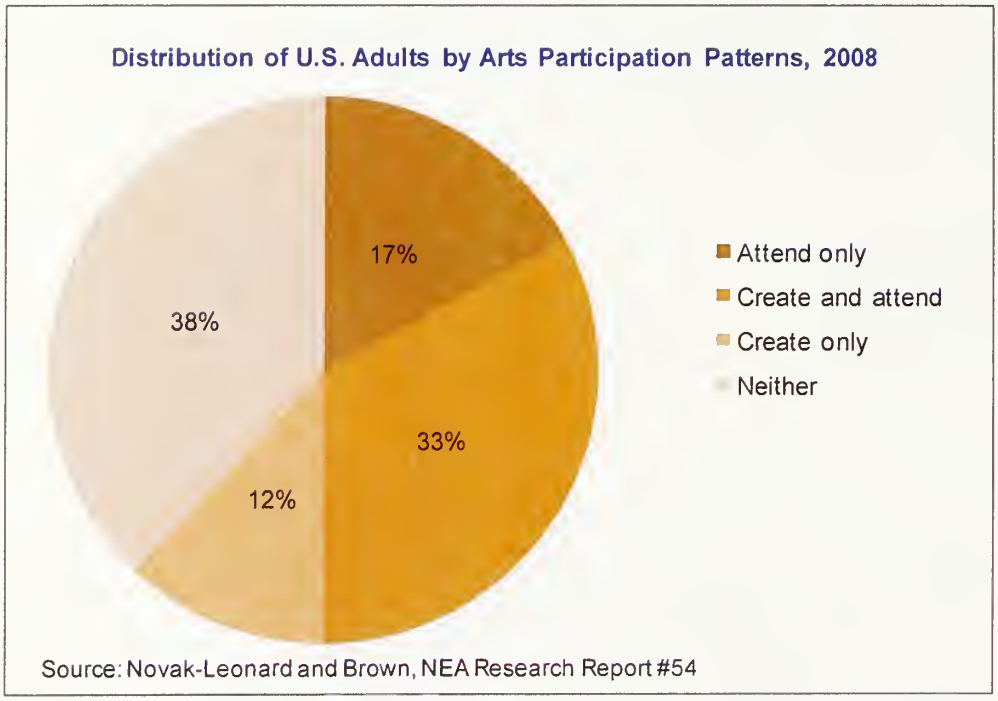
Creation

Music (musical instrument-playing, performing opera, and singing with a choir or vocal group); *Theater* (performing musical or non-musical plays); *Dance* (performing dance); *Visual arts* (engaging in one or more of the following types of arts creation: pottery, ceramics, jewelry, leatherwork, weaving, needlework, sewing, photography, films, videos, painting, drawing, or sculpting); *Creative writing*; *Arts curation* (owning an original work of art).

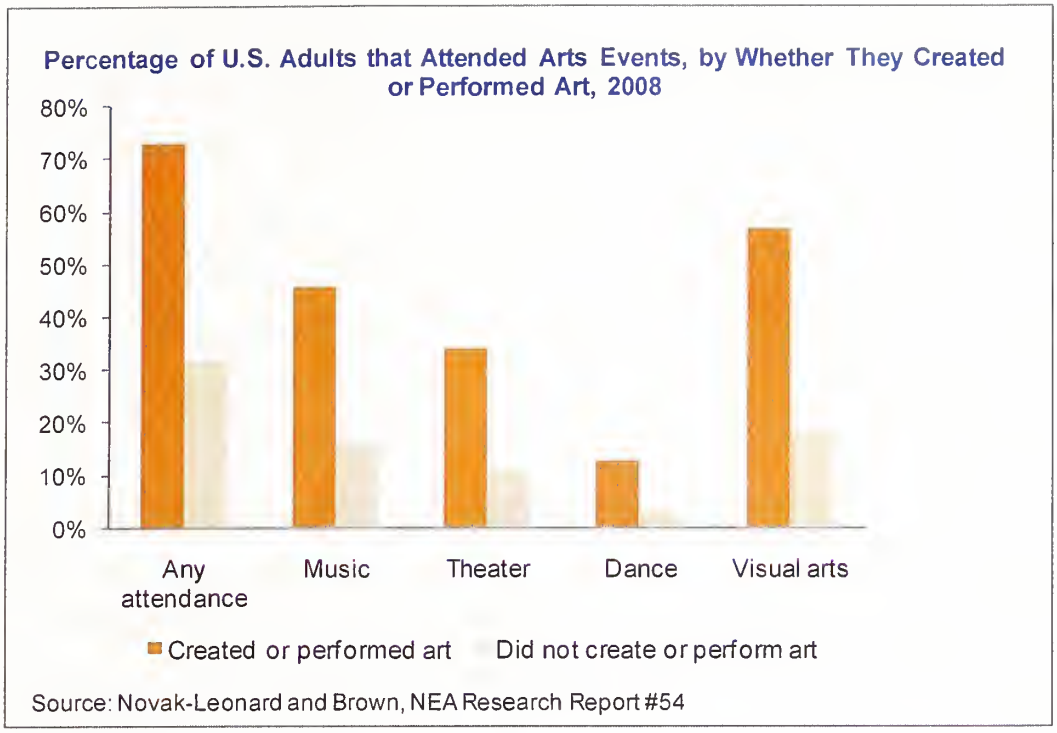
Media

Internet-based arts activities (music, theater, dance, visual arts); *Broadcasts and/or recordings* (jazz, classical music, opera, Latin or Spanish or salsa music, musical or non-musical plays, dance, programs about artists and art works, and programs about books or writers).

The Novak-Leonard Brown report also investigated the relationships between various "modes" of arts participation. Among their most significant findings is the correlation between arts attendance and creation. The report shows that most who engage in these activities do both. **In 2008, 33 percent of adults attended arts events *and* personally performed or created art. Only 17 percent participated by attending only; 12 percent participated only by creating or performing.**



Attendance rates among adults who create art are two to five times higher than for those who do not create art. For example, compared with adults who do no personal arts performance or creation activities, attendance at any of the arts activities featured in the 2008 SPPA was 2.3 times higher among adults who created art. For dance attendance, the ratio was almost five times higher.



The strong relationship between attendance and creation can also be demonstrated through the calculation of odds.[19] As the table below shows, **the chances that Americans who engage in creative activities will attend arts events were almost six times better than for those who did not create art.**

Within art forms, the odds of attending are particularly high for adults who perform dance and theater. The odds ratio for performing and attending dance was 7.2; it was 5.7 for performing plays and theater-going.

Odds of U.S. Adults' Participation via Attendance and Arts Creation, 2008

Odds ratios	Attendance:				
	Attend any	Music	Theater	Dance	Visual arts
Creation:					
Create in any form	5.9	4.4	4.1	5.3	5.7
Music	3.7	2.7	2.4	2.6	2.8
Theater	3.6	2.9	5.7	4.9	2.6
Dance	5.9	5.2	2.6	7.2	4.0
Visual arts	4.5	3.2	2.7	3.6	2.8

Source: Novak-Leonard and Brown, NEA Research Report #54

These results suggest that successful audience-building strategies may consist of programs that combine art-making and personal performance with live attendance opportunities. Novak-Leonard and Brown elaborate on this potential confluence in a series of recommended "strategies for engaging audiences and visitors." These strategies include:

- Involving community artists in the creation of artistic work within professional arts organizations and venues.
- Allowing more interpretation and interaction during exhibits and performances.
- Creating new program formats (e.g., the "mini-concert").
- Providing artistic content and instruction online and through other media.
- Providing opportunities for audiences to "enhance" arts experiences by providing forms for conversation and context-building activities.

Similarly, Novak-Leonard and Brown propose a series of "strategies for engaging people in the creation of artistic works." Taken together with their recommendations for researchers and cultural policy-makers, the authors' report "offers a unique context for understanding arts participation [and] suggests that a more expansive framework for the cultural ecology is needed."[20]

Produced by Bonnie Nichols

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Endnotes

[1] NEA Research Report #36, *Effects of Arts Education on Participation in the Arts* (1996). A summary of this report is available at http://www.nea.gov/research/Researcharts/Summary36.html

[2] Other covariates include citizenship, marital status, and having children under age 18.

[3] This model used the same covariates as the attendance model discussed earlier.

[4] As a variable for analysis, U.S. citizenship status is one the few proxies available in the survey for understanding respondents' potential ties to other cultural heritages or traditions.

[5] This analysis is restricted to young adults to improve the likely accuracy of recall of childhood arts classes.

[6] NEA Research Report #52, Executive Summary, p. 14.

[7] NEA Research Report #52, Chapter Two, p. 42.

[8] Over the years spanning the SPPA surveys, the U.S. Census Bureau has changed the way racial and ethnic categories were defined. In 1982, for example, Hispanic ethnicity was derived by selecting White House Office of Management & Budget-defined categories from a list of ethnicities (e.g., Mexican, Chicano, etc.). Beginning with the 1992 SPPA, however, Hispanic ethnicity was a single, yes/no variable. In 1982, race categories were restricted to "white," "black," and "other." By 1992, the race categories were expanded to include American Indian, Asian, and Hawaiian/Pacific Islander. In 2002, respondents could choose multiple race categories (e.g., White-Asian). The 1982 estimates reported in NEA Research Report #52 (Rabkin) approximate the 2008 SPPA definitions of race and ethnicity. To make the estimates more comparable, this Note reports trends in race and ethnicity between 1992 and 2008.

[9] Please see Table 5 of Research Report #54 (Novak).

[10] The median age for each benchmark arts attendee, 1982-2008, is reported in *Arts Participation 2008: Highlights from a National Survey*, available at http://www.nea.gov/research/NEA-SPPA-brochure.pdf.

[11] The index of representativeness is calculated by dividing each audience share figure by that age group's share of the entire population.

[12] Generations are defined by the following: World War II (born 1936-1945); Early Baby Boomers (born 1946-1955); Late Baby Boomers (born 1956-1965); and Generation X (born 1966-1975).

[13] NEA Research Report #53, Chapter Five, p. 66.

[14] *Race/Ethnicity and Arts Participation: Findings from the Survey of Public Participation in the Arts*, authored by Vincent Welch, Jr. and Yonghyun Kim, NORC at the University of Chicago, will be made available through the Education Resources Information Center (ERIC) via the NEA website in 2011.

[15] The white, African American, and "other" race categories exclude Hispanics.

[16] Race was rendered statistically insignificant by adding an interactive term between educational attainment and race.

[17] Although education was found to be the best predictor of arts participation, it cannot explain all the variance in participation. For example, people of "other" races (the majority of whom are Asian) are better educated than whites. Yet attendance rates for whites are higher than those for people of other races.

[18] This figure is inclusive of attendance rates reported for parks, monuments, buildings, and neighborhoods visited for historic or design value. These events traditionally have not been reported by the NEA as "benchmark" arts activities—though they have been tracked for as long as most arts-attendance activities.

[19] An odds ratio of 1 would indicate that those who create and those who do not are equally likely to attend the arts. For example, the odds ratio of dance to visual arts is 4, meaning that the odds of visiting an art museum or craft fair are 4 times better for adults who perform dance, compared with adults who do not personally dance.

[20] NEA Research Report #54, Executive Summary, p. 15.